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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,509	06/26/2001	Thomas M. Colandene	NVL 3107	1100

7590

03/10/2003

DEPARTMENT OF THE ARMY - CECOM
INTELLECTUAL PROPERTY DIVISION
10225 BURBECK ROAD
AMSEL LG P NVEO (MILTON LEE)
FORT BELVOIR, VA 22060-5806

EXAMINER

MARTINEZ, JOSEPH P

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,509

Applicant(s)

COLANDENE, THOMAS M.

Examiner

Joseph Martinez

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Gal (5,497,269).

Re claim 1, Gal teaches for example, an apparatus for providing a micro-optic function within an optical system (sensor system 101, fig. 2) comprising: a focal plane array (FPA) (focal plane arrays 111, fig. 2) having a detector surface (detectors 124A and 124B, fig. 1), wherein input radiation from a viewed scene (instantaneous field of view IFOV-1, IFOV-2 or IFOV-3, fig. 2) is received by the optical system; and a substrate (substrate 141, fig. 17) with a front side and a backside further including at least one microlens (dispersive microlens 119, fig. 17) attached thereto, said substrate being positioned approximate to the focal plane (fig. 2) within said optical system, wherein said microlens re-focuses said radiation and re-directs said radiation onto said detector surface.

Re claims 2 and 3, supra claim 1. Gal further teaches for example, the microlens is a diffractive or refractive lens structure (col. 12, ln. 20-21).

Re claim 6, supra claim 1. Gal further teaches for example, focal plane array further comprises at least one optical detector, each said optical detector corresponding to a respective microlens (fig. 4c, col. 10, ln. 59-60).

Claim Rejections - 35 USC § 103

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gal.

Re claim 4, Gal further teaches for example, a micro-optic technique for a substrate (substrate 141, fig. 17) within an optical system having a focal plane array (FPA) detector surface (focal plane arrays 111, fig. 2), comprising the steps of: receiving incident radiation from a viewed scene through an optical assembly (instantaneous field of view IFOV-1, IFOV-2 or IFOV-3, fig. 2); providing a substrate (substrate 141, fig. 17) having a front side and a back side on the optical axis in proximity to the focal plane within said optical assembly; and re-focusing said radiation onto said detector surface with said micro-optic, after said radiation has passed through said substrate, to establish a micro-optic effect from the substrate at said FPA detector surface, but fails to teach attaching at least one micro-optic on the substrate to said back side. However, Gal discloses the claimed invention except for the microlens being on the backside of the substrate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach the microlens to the backside of the substrate, since it has been held that a mere reversal of parts of the essential working parts of a device involve only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Re claim 5, supra claim 4. Gal further teaches for example, the micro-optic effect is an improved detection fill factor (col. 1, ln. 47-51).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Martinez whose telephone number is 703-305-0577. The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703-308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4883.

JPM
March 5, 2003


Hung Xuan Dang
Primary Examiner